



The economic costs of terrorist acts

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Costs

- **Terrorism raises transactions costs in the economy and shifts resources toward security activities**
- **Estimated to be significant but not very large relative to GDP**

Benefits

- **Security-related outlays aim at reducing the risk of incident and consequences should it occur**
- **The costs of anti-terror measures may be viewed as an investment**
- **Need to balance both benefits and costs**

Some statistics

- **The total number of international terrorist attacks is falling from the peak of more than 650 in 1988 to over 200 in 2004**
- **Suicide attacks proliferating, three incidents in 1980; in the 1990's on average 10 per year; since 2000 - 25 attacks per year**
- **Suicide terrorism is three per cent of all acts, but it accounts for one-half of deaths**

Loss of human and non-human capital

- **The loss of life and loss of productive capacity of those killed**
- **The destruction of capital (buildings, equipment, infrastructure)**
- **Rescue, clean up/repair costs**

September 11, 2001

- **Direct costs estimated at \$20 – \$60 billion or 0.2 – 0.6 per cent GDP**
- **Rescue and clean up costs about \$11 billion**

Increased uncertainty

- **Re-pricing of risk: lenders demand more compensation**
- **Negative impacts on consumption and investment**
- **Stock market decline reduces consumption (through the wealth effect) and investment (a higher cost of capital)**

September 11, 2001

- **Stock market loss of 17 per cent of GDP (temporary due to rapid and offsetting policy responses)**

Additional costs incurred by certain industries/locations

- **Some locations/industries suffer disproportionate economic and job losses**

September 11, 2001

- **The insurance industry lost roughly \$50 billion**

- **Terrorist acts are intended to produce effects beyond the immediate physical damage**
- **Aim at inflicting long-term psychological consequences**

Higher transaction costs

- **Travel delays, higher construction and insurance costs, additional informational requirements, more regulation, higher levels of inventories, tighter immigration restrictions**

Stress, anxiety, restrictions on individual freedoms

- **Individuals willing to pay 50 and 70 per cent more for an airplane ticket if the risk of a terrorist attack reduced by 25 and 100 per cent (Viscusi and Zeckhauser, 2003)**
- **A resident of Northern Ireland would pay about 40 per cent of his income for a reduction in terrorist activities to the level of Ireland/Great Britain (Frey 2004)**

Higher government security spending

- **The costs of diverting resources to security/military related activities**
- **A “negative” peace dividend that crowds out more productive activities**
- **Adverse effects on the private capital stock – lower productivity and reduced long run potential growth rate**

- **Becker and Murphy (2001): reduced GDP by 0.2 per cent because of lower investment (due to lower than otherwise return on capital)**
- **The Council of Economic Advisers (2002): the level of output reduced by 0.6 per cent after five years**
- **IMF (2001): the loss of output up to 0.75 per cent of GDP**
- **The Congressional Budget Office (2002): 0.3 per cent of GDP**

- **The Basque region's GDP per capita lower by 10 per cent (Abadie and Gardeazabal, 2001)**
- **The conflict in the Middle East costs Israel 4 per cent GDP (WB, 2002)**

- **A doubling of incidents (1968-79) decreases bilateral trade between targeted economies by 6 per cent (Nitsch and Schumacher, 2002)**
- **A month long disruption of U.S. Pacific coast ports, reduces Asian economies GDP by 0.4 per cent (Saywell, 2002)**

- **In Spain, annual FDI flow reduced by 14 per cent in 1975-91**
- **In Greece, by 12 per cent annually in 1976-91 (Enders and Sandler, 1996)**

In Israel, if there was no violent conflict, investment in machinery and equipment would be 15 per cent higher (Fielding, 2003)

- **In Spain (1970-1988), each incident discouraged on average 140,000 tourists (Enders and Sandler 1991). In 1988, 5.4 million tourists in Spain**
- **Between 1974-88, continental Europe lost \$16 billion due to terrorism. In 1988, total tourism revenues were \$74 billion (Enders, 1992)**

- **Spillover effects: the aggregate loss for the continent as a whole greater than the sum of individual countries**
- **Temporal effects: takes up to 24 months before tourism appears unaffected by a terrorist accident**

Estimates

- **Wide ranging, not comparable**
- **Measurement problems - counterfactuals**
- **Academic research**
- **Not the UN terminology**

Some policy considerations: international co-operation

- **All economies benefit from a more secure environment (international public good)**
- **If a country fails to take action – global/regional impact**

- **Challenge: How to establish an effective framework for regional cooperation**
- **Joint action is more effective and cheaper overall: assist?**
- **Exclude from international transactions: penalize?**

- **Governments responsible for preventing terrorist attacks**
- **Private sector has the duty to take reasonable precautions**

- **Challenge: How to establish a co-op link between the public and private sectors**
- **Definition of “reasonable” standards, how to measure compliance, how to encourage information sharing (confidentiality), how to encourage private sector’s participation, how to introduce market mechanisms to reward good behaviour**